Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 9, Issue, 10, pp.58568-58582, October, 2017

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

DUTY SET PRICE ON HELMSMAN ACTION THEORY FOR PAYMENT RELAY BASED PRICE ENGINEERING AND ACCOUNTING

***,[1]Onyema, K. N. and [2]Adedimila, A. S.**

[1]Department of Civil Engineering, Federal University of Technology, Owerri, MNSE, COREN, Affiliate ASCE
[2]Formally of Department of Civil and Environmental Engineering, Akoka, Lagos

ARTICLE INFO

Article History:
Received 10th July, 2017
Received in revised form
10th August, 2017
Accepted 24th September, 2017
Published online 17th October, 2017

Key words:
Action,
Duty,
Management,
Price,
Task.

ABSTRACT

This paper on price as an engineering subject seeks a defining of platform engineering type price concept and accounting, emphasizing a partnership concept to tax incidence as complementary and underlining. Being guided by the characterized story of Animal Farm, with a focus on the case principal leader's institution, as establishing challenges on a market type ground, it was emphasized that in a perfectly competitive market, therefore, the main problem for a profit maximizing firm is not to determine the price of its product but to adjust its output to the market price so that profit is maximum. Based on included theoretical framework from concepts of payment series mathematics, payment relay based price mathematics is defined. This defined mathematics suggests a redefinition of duty recommendation relative to management task systematic. On this a systemic as equivalent rectangle is suggested for a duty workman and a lender, with a case on balance sheet solved. In addition to this, complementary outlet/finished state equivalent prices are solved. The practical idea is to find equilibrium points for the systemic and the finished state price for objective pricing, and strategies where such may be required. Finally, the accounting framework is defined.

Citation: Onyema, K. N. and Adedimila, A. S. 2017. "Duty set price on helmsman action theory for payment relay based price engineering and accounting", *International Journal of Current Research*, 9, (10), 58568-58582.

Setting appropriate prices for engineering work duties and associated works services is a local business challenge in Nigeria today. This is the basis of this title on price as an engineering topic. Price is defined by Concise Oxford English Dictionary as the amount of money expected, required or given in payment for something. It is something expended or endured in order to achieve an objective. However in action, one either has to decide a price for something or attach a recommended price. Writing on the conflict of Manor Farm in a fairy tale as of the book Animal Farm, (Orwell, 2007) was able to craft a typical character play on the maze of platform price (see details of the tale review in the appendix). In it the tale speaks of Mr. Jones, of the Manor Farm, who had locked the henhouse once for the night, but was too drunk to remember to shut the doors, while headed to the bedroom where Mrs. Jones was already snoring. As soon as the light in the bedroom went out there was a stirring and a fluttering all through the farm buildings. Word had gone round during the day that old Major, the prize middle white boar, had had a strange dream on the previous night and wished to communicate it to the other animals. At one end of the big barn, on a sort of raised platform, Major was already on his bed of straw, under a lantern which hung from a beam. He was twelve years old and had lately grown rather stout, but he was still a majestic-looking pig, with a wise and benevolent appearance, nevertheless.

Comrades, he said, here is a point that must be settled: the wild creatures, such as rats and rabbits are they our friends or our enemies? The vote was taken at once, and it was agreed by an overwhelming majority that rats were comrades. He further said, I have little more to say. I merely repeat, remember always your duty of enmity towards Man and all his ways. Whatever goes upon two legs is an enemy. Whatever goes upon four legs or has wings is a friend. Old Major cleared his throat and began to sing:

Beasts of England, beasts of Ireland
Beasts of every land and clime
Hearken to my joyful tiding
Of the golden future time

******Corresponding author:* **Onyema, K. N.**
Department of Civil Engineering, Federal University of Technology, Owerri, MNSE, COREN, Affiliate ASCE

Soon or later the day is coming
Tyrant man shall be o'erthrown
And the fruitful fields of England
Shall be trod by beasts alone

The singing of this song threw the animals into the widest excitement. Almost before Major had reached the end, they had begun singing it for themselves.

Much later, Minimus the poet composed another song, thus starting:
Animal Farm, Animal Farm
Never through me shall thou come to harm

Squealer said stiffly, Beast of England was the song of the rebellion, it is no longer needed. All orders were now issued through Squealer or one of the other pigs. Napoleon himself was not seen in public as often as once in a forthnight. He was now never spoken of simply as Napoleon. He was always referred to in formal style as "Our leader, Comrade Napoleon". It has become usual to give Napoleon the credit for every successful achievement and every stroke of good fortune. One night, there came from the farmhouse the sound of loud singing, in which, to everyone's surprise, the strains of Beast of England were mixed up. Then, Napoleon emerged, seen wearing an old bowler hat of Mr. Jones. Time came when only a few as Clover, Benjamin, Moses and a number of pigs remembered the days of the rebellion. The commandments became written to one: 'All animals are equal, but some animals are more equal than others'. Eventually, Napoleon announced that the name 'Animal Farm' had been abolished. Henceforth, the farm was to be known as 'The Manor Farm' which, he believed, was its correct and original name. No question now on what had happened to the faces of the pigs. The creatures outside looked from pig to man and from man to pig, and from pig to man again; but already it was impossible to say which was which. In a perfectly competitive market, therefore, the main problem for a profit maximizing firm is not to determine the price of its product but to adjust its output to the market price so that profit is maximum (Dwivedi, 2009). Also, from the context of a firm, an important aspect of profit maximization is to find the price from the set of prices revealed by the demand schedule that is in agreement with profit maximization objective of the firm. This is not exactly the same as similar objective as could be seen existing in cost or resource allocation. Dwivedi also asserted that there is only one price for each product commensurate with profit maximization under the given conditions. That is, the profit maximizing price does not necessarily coincide with minimum cost of production. Besides, the level of profit maximizing price is generally different in different kinds of markets, depending on the degree of competition between the sellers. However, if we have to vie off the concept of mutual market structure and degree of competition and look at a 'define it – type of pricing', we will have a different attitude to price determination. In that case we will be looking at separated market and competition practices. According to Dwivedi, in economic sense, a market is a system by which buyers and sellers bargain for the price of a product, settle the price and transact their business – buy and sell a product. It does not necessarily mean a place. The market for a commodity may be local, regional, national or international. What makes a market is a set of buyers, a set of sellers and a commodity, of which sellers are willing to sell and there is a price for the commodity.

Background

Politics accomplishes the direction and self – direction of societies and allocation of values through reinforcing and strengthening the habits of compliance, the probability of enforcement of the law against those who may transgress it. Politics is indeed what the nineteenth-century statesmen called it: the art of the possible (Deutsch, 1974). To be effective any politician or statesman must know what can be done politically at any particular time and place: what laws and behaviour people will accept as legitimate, will permit to be enforced and will continue to support long enough to achieve the desired results. Priorities have to be ordered based on what is possible. The word "politics" stresses the process of decision making about public actions or goods – about what is done and who gets what. The word "government" stresses the results of this process in terms of the control and self – control of the community – whether city, state, or nation. By a helmsman concept Deutsch wrote: government is related to both the old art of steering and self-steering and the new sciences of information and control. The Greek word for the steersman or helmsman of a ship was kubernētēs. "Governor" and "government" are derived from this term and so does the word for the science of communication and control: "cybernetics". Government is largely helmsman of the society being guided by politics.

Deviating to (Hoffman and Graham, 2006), in introducing the concepts of the state, freedom, equality, justice, democracy and citizenship as classical ideas, the authors fixed their concept idea, that underpins these mentioned and politics in general, at power – 'we are always talking about power'. Further, they wrote, it is not difficult to see that when we talk about power and its relation to authority we are also implicitly raising issues that have a direct bearing on the classical ideas. They also choose Max Weber's definition of the state as an institution claiming a monopoly of legitimate force. Linking power and force, they wrote: while the two ideas sound similar, power requires compliance whereas force does not. If ones choice is illusory, then we speak of coercion rather than power. However, according to them, one of the most frequently debated topics is the question of whether force can be legitimate – by legitimate it is implied that has been authorized by parliament and limited by those who can vote and hold the earlier accountable. Power as they defined is a social concept – as concerned with human relations and not with the mere movement of inanimate objects. On power and authority as an indissoluble link, they wrote that power and authority are often contrasted. A simple definition is that power dominates someone or some small group, telling them what to do, whereas authority is concerned with the rightness of an action – a person has to be pressured into complying with power, whereas they will obey authority in a voluntary way. Power and authority contradict each other and yet there is an indissoluble link between them – power and authority appear to exclude one another, but they are never found apart. It is a problem of 'two levels'.

On accounting for the 'indissoluble link' (Hoffman and Graham, 2006) wrote, constraint is unavoidable since no agent can exist except through a structure: these structures are both natural and social. It should not be confused with force, saying, although we know of many societies that were or (in the case of international society) are stateless in character, we know of no society in which there is an absence of constraint. All relationships involve constraints (power) and entitlements (authority). The point is that even in the most authoritative statement, power is also implied, and in the sternest expression of power, authority is also present. The two always go together and unless they are linked, no relationship is possible. In their opinion, power is not merely a crucial but the central concept of politics. The contention that bad, even corrupt, government is good has two components: the political and the economic. The inarguable harm brought by bad government led (Henry, 2013) to a second inquiry asking: what is good government? He stated good government is uncorrupted, democratic and competent and that public administration is essential to these. He defined public administration as a broad-ranging and amorphous combination of theory and practice that is meant to promote a superior understanding of government and its relationship with the society it governs, as well as to encourage public policies more responsive to social needs and to institute managerial practices attuned to effectiveness, efficiency, and the deeper human requisites of the citizenry.

A bureaucrat is a government official perceived as being overly concerned with procedural correctness. In defense of governing well (Henry, 2013) wrote, bureaucracy is in our bones. Saying, prehistoric evidence unearthed at archeological digs suggests that the rudiments of a bureaucratic social order were in place 19,000 years ago. He further asked, 'do we need government?' and said, not everyone agrees that bureaucracy and government are basic to society – some contend that government is best which governs least, that the very best government is no government at all. Henry highlights that it has been argued that when those who want the government to go away are in power, they deliberately delegitimize government in the eyes of the public, restrained by only what is politically infeasible, they act as a 'wrecking crew' that sabotages governmental competence. That the public could benefit from more responsible regulation of some industries seems plausible. Not everyone agrees that bureaucracy and government are basic to society. Bureaucracy is defined as a system of government in which most decisions are taken by state officials rather than by elected representatives. Henry's pilot of his introductory discuss on bureaucracy, government and public administration creates a cloud of the posture of political scenario and it also clouds understanding of politics and government as different but usually interacting together.

Now, on fundamentals, politics is the art or science of running governmental or state affairs, including behaviour within civil governments and special interest groups and segments of society (Wikipedia, 2012). It consists of social relations involving authority or power and to the methods and tactics used to formulate and apply policy. A policy is typically described as a principle or rule to guide decisions and achieve rational outcomes. Policies can assist in both subjective and objective decision making. Government, to govern or to manage, consists of legislators, administrators in the administrative bureaucracy who control a state at a given time, and the system by which they are organized. It is the means by which state policy is enforced, as well as the mechanism for determining same. A form of government, or form of state government, refers to the set of political institutions by which a government of a state is organized. A state is an organized political community living under a government. That is a compulsory political organization with a centralized government that maintains a monopoly of the legitimate use of force within a certain territory. State affairs include administrative bureaucracies, legal systems, military, religious organizations. Because politics is the making of decisions by public means, it is primarily concerned with government, that is, with the direction and self – direction of large communities of people (Deutsch, 1974). One of the fundamental truths about politics is that much of it occurs in the pursuit of the interests of particular individuals or groups. Most of the time people are more interested in rewards than sacrifices. The concept of interest, however, is ambiguous. It implies a claim or expectation of reward. But such a claim or expectation has both subjective and objective sides. On the subjective side it describes a distribution of attention. People are interested in whatever they pay attention to. The objective side of interest is the actual probability of reward. In dealing with the interplay of interests – the claiming and distributing of rewards, politics centres on allocation of values. Values represent the interests. They include power, enlightenment, wealth, well-being (or health), skills, affection, rectitude (righteousness and justice together), and defence (or respect).

This paper aims at creating organized engineering services price subject as forum platform for bridging local entrepreneurial organization's limited access to central government services, by offering them 'as-unit market participator access'. Hence, this as-unit market participator access become a private government perspective to integrating their domestic work produce to the central grid and more so, enhancing the competence available to them through observable outcome of synergistic practices.

MATERAILS AND METHDOS

Entrepreneurship development underlines the theoretical framework on methodology. Entrepreneurship development is driven by the motivations of individuals seeking to satisfy their own personal goals (Kirby, 2003). An entrepreneur is an individual who establishes and manages a business for the principal purposes of profit and growth. He is characterized principal purposes of profit and growth. He is characterized principally by innovative behavior and employs strategic management practices in the business. However, while the key to initiating the process of entrepreneurship lies within the individual members of society, its development is affected by the degree to which the spirit of enterprise exists, or can be stimulated. The enterprise culture is about being dependent on one-self. The concept might be conceived as requiring individuals, groups and organizations to take responsibility for their own destinies ('ownership'), whether in a business or non-business context. Often the term entrepreneurship is equated with new venture creation, small business management, concepts of owner-management and self-employment. However, not all owner-managers can be regarded as entrepreneurs, nor are all small business entrepreneurial. Kirby further says that a small business owner is an individual who establishes and manages a business for the principal purpose of furthering personal goals. The

business must be a primary source of income and will consume the majority of one's time and resources. The owner perceives the business as an extension of his or her personality, intricately bound with family needs and desires. A small business venture is any business that is independently owned and operated, not dominant in its field, and does not engage in any new marketing or innovative practices. Looking at entrepreneurship as a concept about innovation and change, then it is not restricted to new or small ventures, private-sector organizations or to profit-making enterprises. Rather, it is a way of life that permeates society to a greater or lesser extent. However, in a business studies context, it is normally associated with profit-making activities and is perceived to serve five main functions namely: innovation and change, new venture creation, business growth, job generation and regional development.

Some forms of entrepreneurs are describable as cultural or aesthetic, have 'extreme' creativity frequently and possess a determination to succeed that overcomes initial skepticism, opposition and criticism. They believe in themselves and their creative genius, and get satisfaction out of it, often not caring what others think. Not infrequently they are self taught. Their contribution to the economy and society, therefore, is not to wealth creation per se but to the enrichment of life, by challenging convention and by operating up, ways of thinking and behaving that previously did not exist. Selected basic concept definitions in macroeconomics platforms this topic, as herein in focus, in primary conceptualization thus: the central problem for macro economics policy-makers is to decide how to manage the economy in such a way that inflation is kept under control while unemployment is also kept to a minimum (Lipsey and Chrystal, 2007). Inflation is a positive rate of growth of the general price level. General Price Level is average level of prices of all goods and services produced in the economy. Analysis of the short run in macroeconomics is concerned with explaining why national output can deviate from its potential level. It is about the GDP gap and how to keep both positive and negative gaps as small as possible – that is, how to keep actual GDP as close as possible to potential GDP. The long run is a period sufficient to allow time for the automatic adjustment mechanisms to return economic activity to equilibrium after it has been disturbed by an exogenous (external) stock. This equilibrium is reached when the economy returns to producing the level of potential output or full-employment. Even in macroeconomics there is really a long run and a longer run, the latter of which permits growth in productive capacity and therefore, growth in potential output.
Accounting is more of an art than a science (Horngren, Sundem and Stratton, 2002). That is to say that the basic purpose of accounting information is decisions. Management accounting refers to accounting information developed for managers within an organization. It is the process of identifying, measuring, accumulating, analyzing, preparing, interpreting and communicating information that helps managers fulfill organizational objectives. In contrast, financial accounting refers to accounting information developed for the use of external parties such as stockholders, suppliers, suppliers, banks and government regulatory agencies. Regardless of the type of organization, management benefit when accounting provides information that helps them plan and control the organization's operations.

'Accounting is the language of business – it conveys the financial story'. In terms of profit making activities accounting can be explored. To prepare data for the financial statements, accountants record an organization's transactions. A transaction is any event that affects the financial position of an organization and requires recording (Horngren, Sundem, & Stratton, 2002). Managers, investors and other interest groups often want the answers to two important questions about an organization:

1. How well did the organization perform for a given period?
2. Where does the organization stand at a given point?

Accountants answer these questions with three major financial statements:

1. An income statement
2. A statement of cash flows
3. A balance sheet

To interpret a financial statement, one of the first considerations is the balance sheet: it is the financial status of an organization at an instant of time. It has two sections – assets and equities. Assets are economic resources that are expected to benefit future activities and equities are the claims against, or interest in the assets. The balance sheet as an equation is:

$$assets = equities \quad \text{……...…3.1}$$

The equities side of the equation can be divided into:

$$assets = liabilities + owners' equity \quad \text{…….……3.2}$$

Liabilities are the entity's economic obligations to non-owners. Owners' equity is the excess of the assets over the liabilities. Because the owners of a corporation are its stockholders, the owners' equity of a corporation is called stockholders' equity.
In turn, the stockholders' equity is composed of the ownership claim arising from funds paid-in by the owners (paid-in capital), plus the ownership claim arising from reinvestment of previous profits (retained income or retained earnings).

$$assets = liabilities + stock\square olders' equity \quad \text{…….……3.3}$$
$$assets = liabilities + paid - in\,capital + retained\,earning \quad \text{……..3.4}$$

Revenues are increases in ownership claims arising from the delivery of goods services. It has to meet two rules:

1. It must be earned – that is, goods must be delivered or services must be fully rendered to customers.
2. Revenue must be realized – the seller must be reasonably sure of receiving the resources promised in exchange for the goods or services. Receiving cash directly for instance.

Expenses are decreases in ownership claims arising from delivering goods or services or using up assets. Profits (earnings, income) are the excess of revenues over expenses.

$$Profit = Revenue - Expenses \quad \text{……..3.5}$$

The income statement summarizes the revenues and expenses. It measures the performance of an organization by matching its accomplishments (revenue from customers, which is usually called sales) and its efforts (cost of goods sold and other expenses). Each item in a financial statement is an account. Expense accounts are basically negative elements of the stockholders' equity account. Sales (revenue) account is a positive element of stockholders' equity. The balance sheet equation (equation 3.4 and 3.5) highlight the link between the income statement and balance sheet, where equation 3.5 represents the retained income thus:

$$assets = liabilities + paid - in\,capital + revenue - expenses \quad \text{……3.6}$$

A budget is a quantitative expression of a plan of action. They are also an aid to coordinating and implementing plans. The financial accounting system supports both planning and controlling and is a key source for performance reports – feedback provided by comparing results with plans and by highlighting variances. However, concepts, conventions and rules determine what events are to be recorded as accounting transactions and how their financial impact is measured.

Engineering takes the knowledge of mathematics and natural sciences gained through study, experience and practice, and applies this knowledge with judgment to develop ways to utilize the materials and forces of nature for the benefit of all humans (Eide, Jenison and Mikelson, 2008),. Here the parallel concepts envisaged are thus:

1. The nature we are looking at is price bargain equivalent rectangle,
2. The benefit is platform transaction,
3. The mathematics is payment relay mathematics and the natural science is price behaviour and technical plans,
4. The judgment is equivalent customer responses rectangle as price tag.

Following, the character of the payment relay is described with payment series mathematics in view. Payment Relay Mathematics is setting payment series targets as parameters of a systems payment plan and reconverting it to a Duty Set and Lender Value. Given the following definition of payment relay mathematics and parameters listed as follows, equation 3.6 as shown becomes equation 3.7:

$A = Duty\,Set\,Price$
$An = Transaction\,Platform$
$F = Future\,Progress\,Gauge$
$n = Helmsman\,Action\,T\square eory\;\; HAT\;\; Parameter$
$P = Corporate\,Lend$

Becomes:

Laying out the payment relay mathematics (PRM): A payment relay for a standard equivalent macro bargain as

$$F = A_{lb}n_{lb} + F_{pic} + A_{rv}n_{rv} - A_{ex}n_{ex} \quad \text{…..3.7}$$

n_{lb} = Liability HAT (duration), n_{rv} = Revenue recovery HAT (duration), n_{ex} = Expenses HAT (duration) and F_{pic} = Lender paid-in capital. Also, A_{lb}, A_{rv}, A_{ex} are the duty set prices of liability, revenue and expenses subjects as related to the assets equation of equation 6.

Converting the prm to duty set price equivalent(s) as objective pattern subject (At a case corporate lend): Next is to reduce the equation so relayed to a duty price and a corporate lend based systemic, including applicable decision ratios as appropriate and the as-defined time relay values, that is, the HAT parameters that are taking the described standard payment relay to matched systemic concept. First, on those operating as endogenous in standard equivalent macro bargain. On the decisions, assets and liabilities are both economics values, paid-in capital and expenses are both expenditure values but revenue stands independent. The corporate lend offer is at the economics values and a certain exogenous helmsman n is provided for the existence of offer.

$$P\,1 + i\,^{n} = P\,\frac{i\,1+i\,^{n_{lb}}}{1+i\,^{n_{lb-1}}}\,n_{lb} + F_{pic} + A_{rv}n_{rv} - F_{pic}\,\frac{i\,1+i\,^{n_{ex}}}{1+i\,^{n_{ex-1}}}\,n_{ex} \quad \text{……..…4.2}$$

$$P\,1 + i\,^{n} = P\,\frac{i\,1+i\,^{n_{lb}}}{1+i\,^{n_{lb-1}}}\,n_{lb} + F_{pic}\;\;1 - \frac{i\,1+i\,^{n_{ex}}}{1+i\,^{n_{ex-1}}}\,n_{ex} + A_{rv}n_{rv} \quad \text{……4.3}$$

Assigning offer ratio(s)/factor to reduce converted prm to objective duty set price and objective corporate lend systemic-equation: The duty set price is the revenue targeted by pair, describable as lender and workman. In this case it can be computed at the existence of expenditure to corporate lend offer ratio, $\propto_{pic}$, that is $\propto_{pic}= \frac{P_{pic}}{P}$, thus:

$$P\ 1+i\ ^{n} = \frac{i\ 1+i\ ^{n_{lb}}}{1+i\ ^{n_{lb-1}}}\ n_{lb} + \propto_{pic} P\ \ 1 - \frac{i\ 1+i\ ^{n_{ex}}}{1+i\ ^{n_{ex-1}}}\ n_{ex}\ + A_{rv}n_{rv} \quad \text{……4.4}$$

$$A_{rv}n_{rv} = P\ \ 1+i\ ^{n} - \frac{i\ 1+i\ ^{n_{lb}}}{1+i\ ^{n_{lb-1}}}\ n_{lb} - \propto_{pic}\ \ 1 - \frac{i\ 1+i\ ^{n_{ex}}}{1+i\ ^{n_{ex-1}}}\ n_{ex} \quad \text{…….....4.5}$$

$$A_{rv} = \frac{P}{n_{rv}}\ \ 1+i\ ^{n} - \frac{i\ 1+i\ ^{n_{lb}}}{1+i\ ^{n_{lb-1}}}\ n_{lb} - \propto_{pic}\ \ 1 - \frac{i\ 1+i\ ^{n_{ex}}}{1+i\ ^{n_{ex-1}}}\ n_{ex} \quad \text{…….4.6}$$

Similarly, the present value, given that a revenue annuity is set, is the corporate lend value as the real price of the desired ware considered as a unique composite of technocratic recommendation, under a feasible market value progress gauge price as outlet offer:

$$P = \frac{A_{rv}n_{rv}}{1+i\ ^{n} - \frac{i\ 1+i\ ^{n_{lb}}}{1+i\ ^{n_{lb-1}}}\ n_{lb} - \propto_{pic}\ 1 - \frac{i\ 1+i\ ^{n_{ex}}}{1+i\ ^{n_{ex-1}}}\ n_{ex}} \quad \text{……...4.7}$$

As mentioned, equation 4.6 is the duty set price, equation 4.7 is the partnership as a transient offer, that is, a land rent strategist price. This land rent strategist price concept become a business cycle basis for partnership approach to taxation; see (Onyema², 2016) or investor repayment possibility; see (Onyema & Osuagwu, 2015). However based on the general idea of a selected land rent offer as numerator, given a running (open) lender loan to attain equilibrium at their equilibrium point based on helmsman action theory, the idea behind the partnership approach to taxation is keeping trading within a concept of investment existing as intrinsic denominator and a general trade existing as land rent offer of intrinsic numerator description. However, a third player aside the lead investor and the land rent strategist is the outlet visitor. If we package outlet value as basic options of sales offer, then we will have eight possible offers of a standard future value, and others on aggregates and optimal. These serve as offer of sales value 'we see' for the complementary existence of entrepreneurship as an outlet discuss and engineering-ship as a land-rent challenge. In that case we will have any of the following future values for competitive market offers:

1.Standard Case

$$F = A\ \frac{1+i\ ^{n}-1}{i} \quad \text{……..4.8}$$

2.Selling price case

$$dF = A_p\ \frac{1+i\ ^{n}-1}{i}\ di \quad \text{…….4.9}$$

Creating an operational variable as:

$$u = \ 1+i\ ^{n} \quad \text{……..4.10}$$

Then,

$$\frac{du}{di} = n\ 1+i\ ^{n-1} \quad \text{…….4.11}$$

$$di = \frac{du}{n\ 1+i\ ^{n-1}} \quad \text{……4.12}$$

Therefore from equation 4.9,

$$dF = A_p\ \frac{u-1}{i}\ \ \frac{du}{n\ 1+i\ ^{n-1}} \quad \text{……4.13}$$

$$\int_0^F dF = \frac{A_p}{ni\ 1+i\ ^{n-1}}\ u - 1\ du \quad \text{…….. 4.14}$$

$$\int_0^F dF = \frac{A_p}{ni\ 1+i\ ^{n-1}}\ \frac{u^2}{2} - u\ \Big|_0^i \quad \text{……4.15}$$

$$F_s = \frac{A_p}{ni\ 1+i\ ^{n-1}}\ \frac{1+i\ ^{2n}}{2} - \ 1+i\ ^{n}\ \Big|_0^i \quad \text{……..4.16}$$

$$F_s = \frac{A_p}{ni\,1+i^{n-1}} \frac{1+i^{2n}}{2} - 1+i^{n} - \frac{1+0^{2n}}{2} + 1+0^{n} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.17$$

$$F_s = \frac{A_p}{ni\,1+i^{n-1}} \frac{1+i^{2n}}{2} - 1+i^{n} + \frac{1}{2} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.18$$

$$F_s = \frac{A_p\,1+i}{ni\,1+i^{n}} \frac{1+i^{2n}}{2} - 1+i^{n} + \frac{1}{2} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.19$$

$$F_{fs} = \frac{A_{fs}\,1+i}{ni} \frac{1+i^{n}}{2} + \frac{1}{2\,1+i^{n}} - 1 \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.20$$

3.Lock in case:

$$dF = A_l \frac{1+i^{n-1}}{i}\, dn \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.21$$

$$\int_0^F dF = A_l \frac{1+i^{n}}{i} - \frac{1}{i}\, dn \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.22$$

$$F_x = A_l \frac{1+i^{n}}{i\ln 1+i} - \frac{n}{i}^{n}_{0} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.23$$

$$F_x = A_l \frac{1+i^{n}}{i\ln 1+i} - \frac{n}{i} - \frac{1}{i\ln 1+i} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.24$$

Considering F_x as of equation 4.24, the suggested lock in future value as a price value results to a real time negative, that is, a complex value. This is so because $\frac{n}{i} + \frac{1}{i\ln 1+i} > \frac{1+i^{n}}{i\ln 1+i}$ is always. However, if we reverse the future lock in opportunity definition for an earlier mover at $0 = n$, towards a price baton date of $(n = 0)$ for a bridging option, and then a price value needs exist for F_x as equation 4.25 thus following:

$$F_{fl} = A_{fl} \frac{n}{i} + \frac{1}{i\ln 1+i} - \frac{1+i^{n}}{i\ln 1+i} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.25$$

4.Optimal Selling Case:

From equation 4.8

$$F = A \frac{1+i^{n-1}}{i} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.26$$

Integrating wrt to i

$$\frac{dF}{di} = A \frac{in\,1+i^{n-1} - 1+i^{n-1} \times 1}{i^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.27$$

At optimal $\frac{dF}{di} = 0$

$$in\,1+i^{n-1} - 1+i^{n} - 1 = 0 \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.28$$

But $1+i^{n} - 1 = F\frac{i}{A}$; then

$$in\,1+i^{n-1} - F\frac{i}{A} = 0 \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.29$$

$$F_{sf} = A_{sf} n\,1+i^{n-1} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.30$$

5.Optimal Lock in Case:

From equation 4.26

$$F = A \frac{1+i^{n}}{i} - \frac{1}{i} \quad \ldots\ldots\ldots\ldots\ldots\ldots 4.31$$

Integrating wrt to n

$$\frac{dF}{dn} = A\ \frac{1+i\ ^{n}\ln\ 1+i}{i}$$ ……4.32

$$\frac{dF}{dn} = A\ \frac{1+i\ ^{n}\ln\ 1+i}{i}$$ ……..4.33

A solution would not exist unless $\frac{dF}{dn} = C_0$, then

$$\frac{dF}{dn} = A\ \frac{1+i\ ^{n}\ln\ 1+i}{i}\ = C_0$$ ……..4.34

But

$$\frac{A\ 1+i\ ^{n}}{i}\ = F + \frac{A}{i}$$ ……..4.35

Then:

$$F + \frac{A}{i}\ \ln\ 1 + i\ \ = C_0$$ ……4.36

$$F_{lf} = \frac{C_0}{\ln\ 1+i} - \frac{A_{lf}}{i}$$4.37

6.Annuity based Selling Case:

From equation 4.8

$$dA = F\ \frac{i}{1+i\ ^{n-1}}\ di$$ ……4.38

Let $u = \ 1 + i\ ^{n} - 1$

$$\frac{du}{di} = n\ 1 + i\ ^{n-1}$$ ……..4.39

$$dA = F\ \frac{i}{u}\ \frac{du}{n\ 1+i\ ^{n-1}}$$ ……..4.40

$$A = \frac{Fi}{n\ 1+i\ ^{n-1}}\ \ln u\ \frac{u}{1}$$ ……..4.41

$$A = \frac{Fi}{n\ 1+i\ ^{n-1}}\ln\ \ 1 + i\ ^{n} - 1$$ ……4.42

$$F_{as} = A_{as}\frac{n\ 1+i\ ^{n-1}}{i\ln\ \ 1+i\ ^{n-1}}$$ ……4.43

7.Annuity based Lock in Case:

From equation 4.26

$$A = F\ \frac{i}{1+i\ ^{n-1}}$$ ……4.44

$$dA = F\ \frac{i}{1+i\ ^{n-1}}\ dn$$ ……4.45

Let $u = \ 1 + i\ ^{n} - 1$

$$\frac{du}{dn} = \ 1 + i\ ^{n}\ln\ 1 + i$$ ……4.46

$$dn = \frac{du}{1+i\ ^{n}\ln\ 1+i}$$ ……...4.47

$$dA = Fi\ \frac{1}{u}\ \frac{du}{1+i\ ^{n}\ln\ 1+i}$$ ……...4.48

Integrating

$$A = \frac{Fi}{1+i\ ^{n}\ln\ 1+i}\ \ln u\ _{1}^{u}$$ ……..4.49

$$A = \frac{Fi}{1+i\ ^{n}\ln\ 1+i}\ln\ \ 1+\ i\ ^{n}-\ 1$$ …….4.50

$$F_{al} = A_{al}\frac{1+i\ ^{n}\ln\ 1+i}{i\ln\ \ 1+i\ ^{n-1}}$$ ……..4.51

8.Optimal Annuity Selling Case:

From equation 4.8

$$A = F\ \frac{i}{1+i\ ^{n-1}}$$ ……..…..4.52

Differentiating wrt to i:

$$\frac{dA}{di} = F\ \frac{1+i\ ^{n-1}\times 1-i\ n\ 1+i\ ^{n-1}}{1+i\ ^{n-1}\ ^{2}}$$ ……..……4.53

For $\frac{dA}{di} = 0$

$$1+\ i\ ^{n}-\ 1\ \times 1-\ i\ n\ 1+\ i\ ^{n-1}\ = 0$$ ……4.54

But $1+\ i\ ^{n}-\ 1 = F\ \frac{i}{A}$, therefore:

$$F\ \frac{i}{A}\ -\ i\ n\ 1+\ i\ ^{n-1}\ = 0$$ ……... 4.55

$$F_{sa} = A_{sa}\ n\ 1+\ i\ ^{n-1}$$ ……4.56

This equation 4.56 is a repeat of equation 4.30.

9.Optimal Annuity Lock in Case:

From equation 4.26

$$A = F\ \frac{i}{1+i\ ^{n-1}}$$ ……4.57

Differentiating wrt to n:

$$\frac{dA}{dn} = Fi\ \frac{1+i\ ^{n-1}\times 0-1\times\ \ 1+i\ ^{n}\ln\ 1+i}{1+i\ ^{n-1}\ ^{2}}$$ ……...4.58

This equation 4.57 can only retain a solution if the rate of change has a value. Hence, taking C_x as a constant value for it, then:

$$Fi\ \frac{-\ 1+i\ ^{n}\ln\ 1+i}{1+i\ ^{n-1}\ ^{2}}\ = C_x$$ ……4.59

But $1+\ i\ ^{n}-\ 1 = F\ \frac{i}{A}$, then:

$$Fi\ \frac{-\ 1+i\ ^{n}\ln\ 1+i}{F\ \frac{i}{A}^{2}}\ = C_x$$ ……..4.60

$$\frac{-\ 1+i\ ^{n}\ln\ 1+i}{Fi\ \frac{1}{A}^{2}}\ = C_x$$ ……4.61

$$F_{la} = \frac{-A_{la}{}^{2}\ 1+i\ ^{n}\ln\ 1+i}{C_x i}$$ ……...4.62

RESULTS AND DISCUSSION

The P-value of equation 4.7 is to describe an offer, seeking equilibrium with an F-value as outlet complement. Hence, equations 4.8, 4.20, 4.25, 4.30, 4.37, 4.43, 4.51 and 4.62 inform the outlet (off-the-shelf) price decisions. Taking $n_{rv} = 70\ days$; $A_{rv} =$

₦ 1,000,000.00; a case liability period of $n_{lb} = 90\ days$; a limited effective expenditure time of $n_{ex} = 40\ days$; and a 'paid-in' ratio of $\propto_{pic}$= 2%; at a book interest rate (as rate of return/lender price) of $i = 10\%$, the complementary annuity plans are as shown on figure 4.1 (but C_o and C_x = 40, 000). A typical of such analysis can be based on the plot of the equation trends as attaining a proportionate plot within the 90 days maximum of the balance sheet systemic duty set price. From figure 4.1 as a basis, whereas the standard outlet price F and the optimal lock-in annuity F_{la} case have a mirror on their smaller set of annuity values: F apparently shields the 20 and 10 annuity values to the left and the F_{la} shields the 1000 and 500 to the right. The 100 and 200 as fixed have linear trends. Nevertheless, the curved trends did not have any significant deviation from each other till beyond 30 units as set. In other words for early variation in prices, it would be wise to look at the linear options. The implication of such defined systems as is necessary for such case operational is development of a systemic of its standard form. The systemic such defined comes to an equation theory for the workman as the duty price person and a certain lender as a bank institution offering loan type services. In other words the idea of helmsman action theory is intrinsically defined as a role existing based on pre-negotiation, such as we are dealing with macro issues on the basis of capability existing (not as assumed to be existing). This capability existing forms a rectangle of salary-type earning from a work-based price pattern A_{rv} which can be spread to equivalent defined earning status.

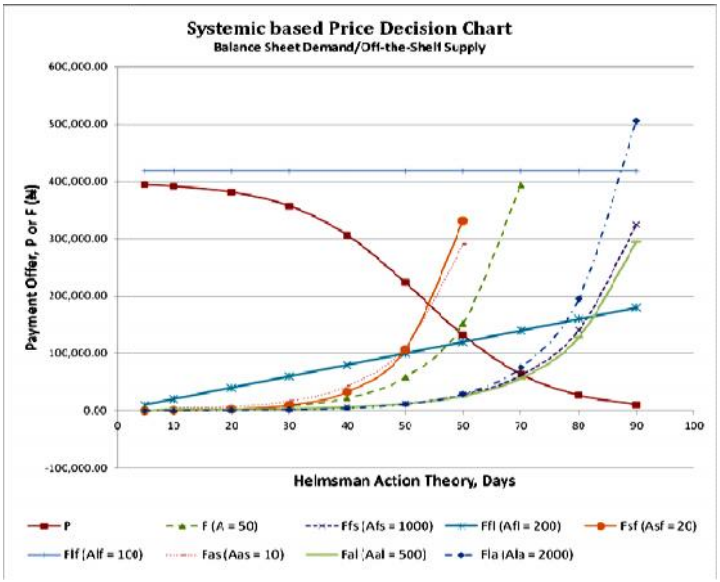

Figure 4. Lender Price Offer versus Suggested Shelf Price

Our government offices, that's functioning as factories of government industry, supplies participating partnership to pure management offices, as conventional factories; that's functioning as alternative private governments. Hence a third tier office field partner joins up in line of a three arm of growth-arm entrepreneur spirit, private establishment and the tier partners. Given this view point we need a helmsman, a government for price and its accounting as the arbiter seen. In such case we can abstract price engineering covering government (as growth spirit arm) and accounting role in it. Defining government and market by an entrepreneur view point then we have thus: government is the structure of entrepreneurial growth spirit, and that spirit is the stemming bureaucrat. So the wisest thing to do for the stemming bureaucrat is to let him attain a technocratic seat. A technocracy is government by elite of technical experts. Such attainment by the bureaucrat would allow other such stemming bureaucrats to keep up the good work for administrators. In line with introductory review, Snowball could not find the price balance and Napoleon could not find the technocratic equivalent either. But both obviously could not connect the bureaucratic transaction. Instead Squealer represented the lost position of Snowball for an aristocratic presence and for the existence of price. Hence, Snowball and Squealer were strategically of peculiar essence, somewhat looking like competing but actually were looking for different roles. Snowball was looking for the accounting frame with entrepreneurship housed; Squealer was looking for the bureaucratic transaction to attain a technocratic seat, that is, starting from aristocratic then across. Based on the existence of need for frame and attaining a technocratic seat, the book, Animal Farm, had omitted the existence of a helmsmen action theory.

The animals saw man and saw pigs, but the follow up statement of 'some are more equal than others' tend to suggest that 'we all need to occupy a headship position at the same time'. That of course cannot be true. The essence of leadership parallels the essence of leadership, so that others in the work committee can also work and even occupy other leadership positions away from those called 'leadership' as related to the political starred by Snowball, Squealer and Napoleon. In other words, work cannot be jeopardized by leadership as it is not the only work the animals presented could do, even if they appeared to be highly interested in the politics of Snowball and Napoleon. Hence, as related to Snowball's leadership efforts and inability of Napoleon to breakthrough, it can be said that 'if one cannot up-stand the existence of helmsman action option, such will naturally fall for non-bureaucratic consequences'. With the helmsman action theory as the connection for developing running business, the non-bureaucratic stride to do the latter needs be understood. The non-bureaucratic stride to develop a running business is a mind state challenge for the existence of alternative work opportunities simultaneously with new friendliness communities, on an excluded journey to capability development that is envisaged as an aspiring-for-headship. With reference to (Onyema, 2006); engineering in government can be defined on an anti-market failure partnership approach to taxation, thus: engineering in government can be

defined as the use of definable monetary ratios relative to government time duration for funding government role in the economics of state affairs. The existence of the bureaucrat allows government to be the growth arm for the entrepreneur. However, the bureaucrat himself needs to update to a technocrat, as stated, to allow follow up administration develop. In its strictest principle, it is the bureaucrat as government partner that is the entrepreneur but his efforts allow the central government to accommodate the stand-alone businesses. Hence, to bring in the entrepreneurship spirit it warrants defining a helmsman action theory thus: the supervised technocratic government partner, in the pursuit of separating public governance and action, is faced with a platform bureaucratic interest, covering three dimensional time challenges of demography, distance and duration.

Now within the concept of Snowball's need for framework with entrepreneurship within, there is the strategist's need to balance the future product trade as a progress gauge value, to create market within the existence of the frame. This potentially allows leadership to be a work of its own description. This future progress gauge could be a standard, selling or lock in value in theory. Hence, for the theoretical framework we have a fundamental parametric set of the following fundamental form:

1. A = The systemic duty set price (of aristocratic assignment)
2. n = The helmsman action theory as a relay on demography N, distance L or duration n (of workman assignment)
3. An = The transaction platform (of bureaucratic assignment)
4. P = Satisfactory work breakeven to business value amount (of technocratic assignment)
5. $\sum P$ = The completion value (of engineering assignment)
6. F = The opportunity shelf (of entrepreneurial assignment)

With these we can take price decisions in active discuss stages. That is, the work moves from a duty set price of systemic definition, A, to a worthy lender/investor value, P, through a helmsman action offer, n. This helmsman action offer may be a demographic value, in that case a number subject N, a distance value which then requires the existence of defined speed as unit to cover a length value L (where $L = Duration \times [Speed]$), or a purely duration definition, n. In this mathematics for accounting theory, an operators' finished product price value equation is total finished value $F_T = \sum P$, guiding the producer as to a wise breakeven limit basis. In other words, we need to add up the investment to a total activities add up value $\sum P$. This total adds up to a value of $F_T = \sum P$. The concept of balance sheet become as illustrated in table 4.1 below:

Conclusion

To land the conclusion, it is necessarily to explain that accounting could be accrual or of cash basis. Accrual basis is a process of accounting that recognizes the impact of transactions on the financial statements in the time periods when revenues and expenses occur instead of when cash is received or disbursed. Cash basis is a process of accounting where revenue and expense recognition would occur when cash is received and disturbed. Measurement of income and financial position use the accrual basis of accounting. The major deficiency of the cash basis of accounting is that it is incomplete. It fails to match efforts and accomplishments (expenses and revenues) in a manner that properly measures economic performance and financial position. To measure income under the accrual basis, accountants use adjustments at the end of each reporting period. Adjustments record implicit transactions, in contract to the explicit transactions that trigger nearly all day-to-day routine entries. Entries for explicit transactions such as credit sales, credit purchases, cash received on account, and cash disturbed on account are supported by explicit evidence, usually in the form of source documents (example, sales slips, purpose invokes, and employee time records). In contract companies prepare adjustments for implicit transactions, such as unpaid wages, prepaid rent, interest owed and special schedules on event times recognition. Without necessarily attempting a 'whole inputs decision system', this paper has sought to solve price definition as a duty concept operating in standard payment series definitions as macro units.

Table 4.1 Theoretical frame of price engineering balance sheet

Assets				Equities			
	Business Technocratic Value	At-helmsman, n	Strategic		Aristocratic	At-helmsman, n	Technocratic
	Bureaucratic				*Bureaucratic*		
Description	Lender Set /Shelf Price	Relay	Amount	Description	Duty Set Price	Relay	Amount
Initial Investment	P	N	Entrepreneurial Scope, P or F	Paid in Capital	P	N	Engineering Scope, P
Inventory	P	N					
Rent	P	N		*Expenses*	Accounts Payable		
				Demographic Case	A	N	
Revenue/Sales	Accounts Receivable			Distance Case	A	L	
Sales on standard quantity trade	F	N		Duration Case	A	n	
Sales on price quantity trade	F	N					
Sales on lock in quantity trade	F	N		Retained Income	P	N	Balance
			$F_T = P$				$F_T = P$

If a production has a value of ₦300, 000.00 at about 40 days helmsman action (that is, A), and a buying trend of F_{la} is the off-the-shelf bargain forecast. Then the sales price must be positioned beyond B at a helmsman action equivalent of say 84 days from the beginnings or 44 days beyond the location of A. The helmsman action theory as explained could be of demography (numbers), distance (length) or duration (time). The helmsman action add-on between A and B can simply be called the reasonable instantaneous profit. The systemic mathematics formulation endeavours to develop a macro unit finance demand, based on the doctrine of duty points relative to a career. The duty set represents a certain price parallel work output pattern. Hence, the story told is the behavior of such practitioners as case systemic controlled – depicting the expenditure lifestyle in systemic question. Nevertheless, the demand-supply equilibrium is formed on a lender and workman present worth wage price. The negotiated duty price, A, will then run for a salary time offer n expected to be a wage value, P. For a product offer analysis, the $\sum P$ must be strategically comparable to a future outlet value, based on standard, optimal or aggregated supply patterns. Hence, we need:

1. Target of present worth marching a future sum
2. Return rate of real time work input
3. Salary-type comparison as guide to set duty bargain and spread
4. An understanding of the helmsman action theory being considered
5. To operate by possibilities of equivalent rectangle payments ahead of instant payments

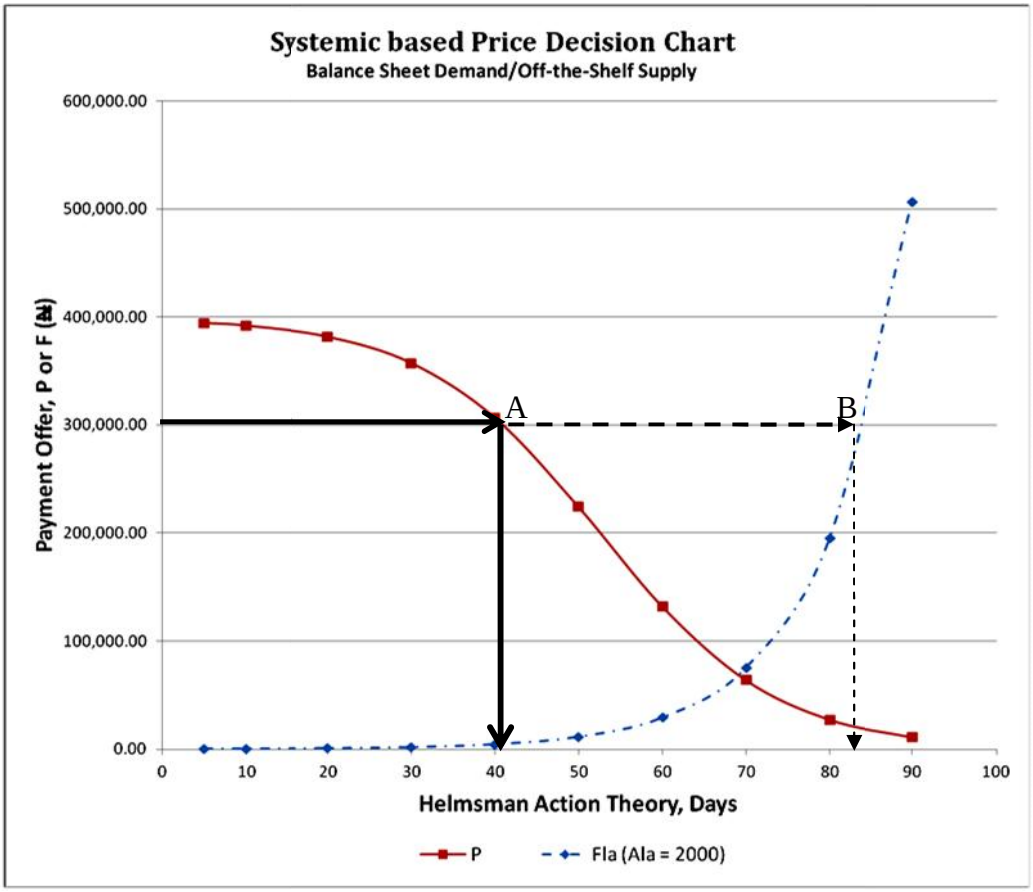

Figure 5.1:A Helmsman-Action Reasonable-Instantaneous Sales Margin

Recommendation

Understanding the subject of price engineering and accounting as herein proposed will need a fundamental understanding of the research background entailed. The burdening scope is as suggested by figure 6.1, having principal research challenge of values to be attached to ratios such as $\propto_{pic}$ and helmsman action values of N, L and n:

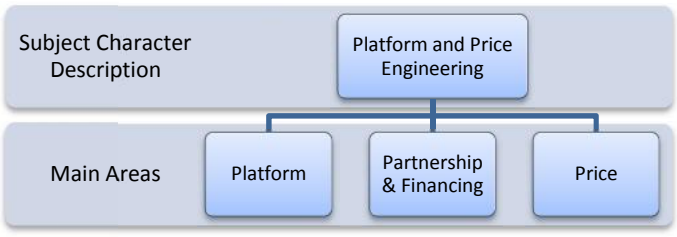

Figure 6.1. The Suggested Basic Subject Main Areas

For price engineering, the research will entail understanding in a particular business case of how the scenario relates to an initial condition of loan offer, then a land rent equivalent of strategy period for loan repaying and thirdly, outlet period studies as representing a time period, across action time gaps, of real-time sales to land the land rent strategy required to attain the loan offer – hence we are looking at three periods of initial condition, strategy equation and outlet period, running on helmsman theory and an interest value. For these we would ask more direct questions of:

1. What land rent pattern suggests a workable breakeven for thrust loan offer?
2. What return price can be offered on land rent, given the fixed thrust loan present worth, rate of interest return and helmsman duration?
3. What is the selling/outlet price, as applicable, given offer outlet future value, a market return rate and helmsman theory?
4. What is the duty set price implication of these?

In addition to the basic research questions, the question of accounting and accounting character is posed. Accounting in engineering is defined herein as creating the reasoning as an art of a specific subject-scope market within the existence of its behavioural finance business macro-cycle as the investment basis (recommended lead thrust as denominator, within an intrinsic option, or numerator for a transient option, compare with (Onyema, 2016) rested on a defined complementary buyer account (BA) trend (preferred base value as numerator, within an intrinsic option, or denominator within a transient option). The BA defined is understood as a market equivalent operating as a consequence of the operator's land rent rules. The case business cycle and the complementary buyer become market partnership trends for partnership approach to taxation.

Acknowledgement

Prof. K. O. Aiyesimoju (Payment Relay Mathematics); Asso. Prof. E. E. Ikponmwosa (Objective Topics and Presentation) and Dr. I. A. Akiije (Definition of Terms) as requested contributions in PhD studies ahead of this subject titled.

REFERENCES

Deutsch, K. W. 1974. *Politics and Goverment: How People Decide Their Fate* (3rd Edition ed.). Boston: Houghton Mifflin Company.

Dwivedi, D. N. 2009. *Managerial Economics* (7th ed.). New Delhi: Vikas Publishing House PVT Ltd.

Eide, A. R., Jenison R D., N. L. and Mikelson, S. K. 2008. *Engineeing Fundamentals and Problem Solving* (5th ed.). New York: McGraw Hill.

Henry, N. 2013. *Public Administration and Public Affairs* (Indian (PHI Learning Private Limited) ed. New Jersey: Pearson Education Inc.

Hoffman, J. and Graham, P. 2006. *Introduction to Political Concepts.* Harlow: Pearson Education Limited.

Horngren, C. T., Sundem, G. L. and Stratton, W. O. 2002. *Introduction to Management Accounting* (12th ed.). New Delhi: Prentice-Hall of India Private Limited.

Kirby, D. A. 2003. *Entrepreneurship.* London: McGraw Hill.

Lipsey, R. G. and Chrystal, K. A. 2007. *Economics* (1st Indian ed.). New Delhi: Oxford University Press.

Onyema, K. N. and Osuagwu, J. C. 2015. *Public Private Partnership and Concessions as Panacea to Funding and Maintenance Challenges of Nigerian Roads* (Vol. III). Nepal: International Journal of Engineering Research and General Science.

Onyema[2], K. N. 2016. *Push-Development Terms on Tax Equations as 2nd Tier Government Industry Exploratory Partner* (Vol. 6). Tamilnadu: International Journal of Development Research. Retrieved from www.journalijdr.com

Orwell, G. 2007. *Animal Farm.* Essex: Longman Group Limited.

Reddy, J. R. 2004. *Advanced Accounting: Theory and Practice.* Delhi: Nangia S. B. A P H Publishing Corporation.

Wikipedia, 2012. *Politics*. (Wikipedia Foundation, Inc) Retrieved from www.wikipedia.org

Appendix

Writing on the conflict of Manor Farm in a fairy tale as of the book Animal Farm, (Orwell, 2007) was able to craft a typical character play on the maze of platform price. In it the tale speaks of Mr. Jones, of the Manor Farm, who had locked the henhouse once for the night, but was too drunk to remember to shut the doors, while headed to the bedroom where Mrs. Jones was already snoring. As soon as the light in the bedroom went out there was a stirring and a fluttering all through the farm buildings. Word had gone round during the day that old Major, the prize middle white boar, had had a strange dream on the previous night and wished to communicate it to the other animals. At one end of the big barn, on a sort of raised platform, Major was already on his bed of straw, under a lantern which hung from a beam. He was twelve years old and had lately grown rather stout, but he was still a majestic-looking pig, with a wise and benevolent appearance, nevertheless. Before long the other animals began to arrive and making themselves comfortable after their different fashions. First came in the three dogs, Bluebell, Jessie and Pincher, and then the pigs. Benjamin was the oldest animal on the farm and worst tempered. He seldom talks and when he did, it was to make cynical remarks. Nevertheless, he was devoted to Boxer without openly admitting it. Two of them usually spent Sundays together, grazing side by side and never speaking. Last of all, came the cat, looking round as usual, for the warmest place and finally squeezed herself in between Boxer and Clover. When Major saw that they had all made themselves comfortable and were waiting attentively, he cleared his throat and began: comrades, you have heard already about the strange dream that I had last night. But I will come to the dream later. Now comrades, what is the nature of this life of ours? Let us face it: our lives are miserable, laborious and short. No animal in England knows the meaning of happiness or leisure after he is old. No animal in England is free.

The life of an animal is misery and slavery: that is the plain truth. But is this simply part of the order of nature? Is it because this land of ours is so poor that it cannot afford a decent life to those who dwell upon it? No comrades, a thousand times no, the soil of England is fertile, its climate is good, it is capable of affording food in abundance to enormously greater number of animals than now inhabit it. Further he said, because nearly the whole of the produce of our labour is stolen from us by human beings, Man is the only real enemy we have. Man is the only creature that consumes without producing. He sets animals to work; he gives them bare minimum against starvation and keeps the rest for himself. To the horror of man's arm on animals, all the animals must come to reasonableness. Hence, remember, comrades, your resolution must never falter. No argument must lead you astray. Man and animals must not be considered as having common interests. All men are enemies, all animals are comrades. At this moment there was a tremendous uproar.

Comrades, he said, here is a point that must be settled: the wild creatures, such as rats and rabbits are they our friends or our enemies? The vote was taken at once, and it was agreed by an overwhelming majority that rats were comrades. He further said, I have little more to say. I merely repeat, remember always your duty of enmity towards Man and all his ways. Whatever goes upon two legs is an enemy. Whatever goes upon four legs or has wings is a friend. Old Major cleared his throat and began to sing:

Beasts of England, beasts of Ireland
Beasts of every land and clime
Hearken to my joyful tiding
Of the golden future time

Soon or later the day is coming
Tyrant man shall be o'erthrown
And the fruitful fields of England
Shall be trod by beasts alone

The singing of this song threw the animals into the widest excitement. Almost before Major had reached the end, they had begun singing it for themselves.

Major's speech had given to the more intelligent animals on the farm a completely new outlook on life. The work of teaching and organizing the others naturally fell upon the pigs, being generally recognized as being the cleverest of the animals. Snowball, Napoleon and Squealer, these three had elaborated old Major's teachings into a complete system of thought, to which they gave the name of Animalism. A rampage ensues eventually. It was just then that Mr. Jones woke up. The next moment he and his four men were in the store-shed with whips in their hands, lashing out in all directions. But the animals were more than the hungry folks they once had known. The animals flung themselves on the tormentors and in full flight down the cart-track that lead to the main road, with the animals pursuing in triumph, they fled. Mrs. Jones looked out of the bedroom window, saw what was happening, hurriedly flung a few possessions into a carpet bag, and slipped out of the farm by another way. In a very little while the animals had destroyed everything that reminded them of Mr. Jones. Napoleon then led them back to the store-shed and served out a double random of corn to everybody, with two biscuits for each dog. Then they sang 'Beast of England' from end to end seven times running, and after that they settled down for the night and slept as they had never slept before. When they woke at dawn as usual, and suddenly remembering the glorious thing that had happened, they all raced out into the pasture together. The pigs claimed eventually that they had learnt to write from Mr. Jones children's book. Then Snowball (for it was he who was best at writing) took a brush between two knuckles of his trotter, painted out Manor Farm from the top bar of the gate and in its place painted Animal Farm. Sometimes the work was hard, the implements had been designed for human beings and not for animals, and it was a great drawback that no animal was able to use any tool that involved standing on his hind legs. But the pigs were so clever that they could think of a way round every difficulty. The horses knew every inch of the field. The pigs directed-supervised and only natural would assume the leadership having superior knowledge. On Sundays there was no work. Breakfast was an hour later than usual and after it was a ceremony. The pigs had set aside the harness-room as a headquarters for themselves. There in the evening they studied black-smiting, carpentry and other necessary arts from books which they had brought out of the farmhouse. Snowball also busied himself with organizing the other animals into what he called Animal Committees. The reading and writing classes, however, were a great success. By the autumn almost every animal on the farm was literate in some degree. Now, if there was one thing that the animals were completely certain of, it was that they did not want Jones back. However, Napoleon took no interest in Snowball's committees. He said that the education of the young was more important than anything that could be done for those who were already grown up. However at another point, Jones and all his men, with half a dozen others from Foxwood and Pinchfield, had entered the five-barred gate and were coming up the cart-track that led to the farm. Obviously, they were going to attempt the recapture of the farm. This had long been expected and all preparations had been made. Snowball, who had studied an old book of Julius Caesar's campaign which he had found in the farmhouse, was in charge of the defensive operations. He gave his orders quickly, and in a couple of minutes every animal was at his post.

As the human beings approached the farm buildings, Snowball launched his first attack as a manoeuvre piece. Snowball launched the second line of attack but the animals turned and fled through into the yard, men gave a shout of triumph. In the yard Snowball had one more; there was not an animal on the farm that did not take vengeance on them after his own fashion. When they won, the animals reassembled in the wildest excitement, each recounting his own exploits in the battle at the top of his voice. Snowball persuaded them of Animal Farm. At the meetings Snowball often won over the majority by his brilliant speeches, but Napoleon was better at canvassing support for himself in between times. Snowball conjured up pictures of fantastic machines which would do their work for them while they grazed at their ease in the fields or imposed their minds with reading and conversation. Within a

few weeks Snowball's plans for the windmill were fully worked out. The mechanical details came mostly from three books which had belonged to Mr. Jones. As usual, Snowball and Napoleon were in disagreement. According to Napoleon, what the animals must do was to procure firearms and train themselves in the use of them. According to Snowball, they must send more and more pigeons and stir up rebellion among the animals on the other farms. The one argued that if they could not defend themselves they were bound to be conquered; the other argued that if rebellions happened everywhere they would have no need to defend themselves. At a specific moment, Napoleon stood up and casting a peculiar sidelong look at Snowball, nine enormous dogs raced the latter out. They kept close to Napoleon. It was noticed that they wagged their tails to him in the same way as the other dogs had been used to do to Mr. Jones. On the third Sunday after Snowball's expulsion, the animals were somewhat surprised to hear Napoleon announce that the windmill was to be built after all. The plans, however, had all been prepared down to the last detail. Throughout the spring and summer they worked a sixty-hour week, and in August, Napoleon announced that there would be work on Sunday afternoons as well. This work was strictly voluntary, but any animal who absented himself from it would have his rations reduced by half. One Sunday morning, when the animals assembled to receive their orders, Napoleon announced that he had decided upon a new policy. From now onwards Animal Farm would engage in trade with the neighbouring farms to obtain necessary materials. The human beings did not hate Animal Farm any less now that it was prospering. Indeed, they hated it more than ever. Every human being held it as an article at faith that the farm would go bankrupt sooner or later and above all, that the windmill would be a failure. Comrades, Napoleon said quietly, do you know who is responsible for this? Do you know the enemy who has come in the night and overthrown our windmill – SNOWBALL. No more delays, comrades, cried Napoleon, when the footprints had been examined. There is work to be done. This very morning we begin rebuilding the windmill and we will build all through the winter, rain or shine.

Out of spite, the human beings pretended not to believe that it was Snowball who had destroyed the windmill: They said that it had fallen down because the walls were too thin. At a January date, food fell shore. The corn ration was drastically reduced. Napoleon was well aware of the bad results that might follow if the real facts of the food situation were known and he decided to spread a contrary impression through Whimper. All this while, no more had been seen of Snowball. He was rumoured to be hiding in one of the neighbouring farms, either Foxwood or Pinchfield. Suddenly, early in the spring, an alarming thing was discovered. Snowball was secretly frequenting the farm by night. The animals were so disturbed that they could hardly sleep in their stalls. Napoleon decreed that there should be a full investigation into Snowball's activities. The animals were thoroughly frightened. It seemed to them as though Snowball were some kind of invisible influence, pervading the air about them and menacing them with all kinds of dangers. Comrades, cried Squealer, making little nervous skips, a most terrible thing have been discovered. Snowball has sold himself to Frederick of Pinchfield Farm, who is even now plotting to attack us and take our farm away from us. Snowball is to act as his guide when the attack begins.

Even Boxer, who seldom asked questions, was puzzled. With a hard effort managed to formulate his thoughts: I do not believe that he said, Snowball fought bravely at the Battle of Cowshed. I saw him myself. Did we not give him Animal Hero First Class immediately afterwards.

Minimus the poet composed another song, thus starting:
Animal Farm, Animal Farm
Never through me shall thou come to harm

Squealer said stiffly, Beast of England was the song of the rebellion, it is no longer needed. All orders were now issued through Squealer or one of the other pigs. Napoleon himself was not seen in public as often as once in a forthnight. He was now never spoken of simply as Napoleon. He was always referred to in formal style as "Our leader, Comrade Napoleon". It has become usual to give Napoleon the credit for every successful achievement and every stroke of good fortune. The animals now also learned that Snowball had never as many of them had believed hitherto received the order of Animal Hero First Class. This was merely a legend which had been spread some time after the Battle of the Cowshed by Snowball himself. So far from being decorated, he had been censored for showing cowardice in the battle. Once again some of the animals beard this with certain bewilderment, but Squealer was soon able to convince them that their memories had been at fault. One night, there came from the farmhouse the sound of loud singing, in which, to everyone's surprise, the strains of Beast of England were mixed up. Then, Napoleon emerged, seen wearing an old bowler hat of Mr. Jones. Time came when only a few as Clover, Benjamin, Moses and a number of pigs remembered the days of the rebellion. The commandments became written to one: 'All animals are equal, but some animals are more equal than others'. Eventually, Napoleon announced that the name 'Animal Farm' had been abolished. Henceforth, the farm was to be known as 'The Manor Farm' which, he believed, was its correct and original name. No question now on what had happened to the faces of the pigs. The creatures outside looked from pig to man and from man to pig, and from pig to man again; but already it was impossible to say which was which.

****